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SL  
PATENT  
P53821C  
10/18/99

IN THE CLAIMS

Please cancel Claims 60 through 63, amend Claims 25, 39, 43, 46 and 56, and add Claims 64 through 77, as follows:

GROUP 3600

OCT 14 1999

~~REC JED~~

~~K1 Sub~~ 25. (Thrice Amended) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an interior  
3 cylindrical surface;  
4 a cylinder plug rotatable around said longitudinal axis while resident within said  
5 hollow recess;  
6 a bar interposed between said shell and said cylinder plug to reciprocate generally  
7 along a radial plane between a first position engaging both said shell and said plug while obstructing  
8 rotation of said cylinder plug within said recess, and a second position accommodating said rotation,  
9 said cylinder plug comprising:  
10 a first base and a second base separated by an axial length of said cylinder plug from  
11 said first base, said second base bearing means for supporting a cam; and  
12 an electrical operator borne by said cylinder plug and rotatable with said cylinder  
13 plug, said electrical operator being electrically operable to respond to a control signal by moving  
14 between a first orientation and a second and different orientation providing obstruction of said bar.

~~Sub  
10/20/99~~ 39. (Amended) The lock of claim 25, further comprising:

2 a [basic] logic circuit generating said control signal in response to a comparison

3 between a code set within said logic circuit and a [date] data signal applied to said logic circuit;  
4  
5 and  
6 said electrical operator moving between said second orientation and said first  
7 orientation in response to said control signal.

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sub  
43. (Amended) A lock, comprising:

2 a cylinder containing a hollow interior recess defining a longitudinal axis, and bearing  
3 a slot within said recess; and  
4 a plug rotatable from a rest orientation around said longitudinal axis while resident  
5 within said hollow recess relative to said cylinder; and  
6 an elongate member positioned between said cylinder and plug while extending into  
7 said slot, and providing simultaneous engagement of said cylinder and said plug while said plug  
8 remains in said rest orientation;

9 said plug comprising:

10 a first base bearing an orifice spaced-apart from and separated by a mass of  
11 said plug from said keyway;

12 a second base separated by an axial length of said plug from said first base,  
13 said second base disposed to support a cam, said mass being penetrated by a radially oriented  
14 aperture;

15 an exterior surface extending between said first base and said second base;

16 *PL Comt* a conductor having a terminal exposed to an exterior of said first base through  
17 *IC3* said orifice;

18 *cont.* ✓ an electronic logic circuit comprising a memory storing a code, said circuit  
19 being borne by said plug and coupled to receive data signals via said conductor, said circuit  
20 generating control signals in dependence upon a comparison between said code and  
21 information borne by said data signal; [and]

22 an electrical operator mounted within said aperture, said operator having a  
23 movable member [travelling] traveling in dependence upon said control signals between a  
24 first position relative to said exterior surface maintaining said simultaneous engagement and  
25 a second and different position relative to said exterior surface accommodating movement  
26 between said plug and said cylinder; and

27 *IC4 Sub 8* a component biasing said movable member to maintain said simultaneous  
28 engagement.

1 46. (Amended) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an interior  
3 cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident within said  
5 hollow recess;

6 a bar borne by said plug and rotatable with said plug relative to said shell, said bar  
7 being interposed between said shell and said cylinder plug to reciprocate generally along a radial

*X4 cont 08 cont*

8 plane between a first position engaging both said shell and said cylinder plug while obstructing  
9 rotation of said cylinder plug within said recess, and a second position accommodating said rotation,  
10 said cylinder plug comprising:

11 a first base and a second base separated by an axial length of said plug from said first  
12 base, said second base bearing means for supporting a cam; and

13 an electrical operator being electrically operable to respond to an electrical control  
14 signal by moving obstructing movement of said bar between said first position and said second  
15 position in response to a first state of said control signal and [accommodating] moving within a  
16 second and different plane not coextensive with said radial plane in response to application of said  
17 control signal to accommodate said movement of said bar in response to a second and different state  
18 of said control signal.

*1CS Sub*

1 56. (Amended) A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an interior  
3 cylindrical surface;

4 a plug rotatable around said longitudinal axis while resident within said hollow  
5 recess;

6 an elongate member interposed between said shell and said plug to travel generally  
7 along a radial direction between a first position engaging both said shell and said plug while  
8 obstructing rotation of said plug within said recess, and a second position accommodating said  
9 rotation;

10           said plug comprising:

11           K  
12           O II  
13           cam;  
14           a first base perforated by an aperture, and a second base separated by an axial  
15           length of said plug from said first base, said second base bearing means for supporting a  
16           cam;

17           a logic circuit borne by said plug and rotatable with said plug, conveying said  
18           data signal between said aperture to said logic circuit; and

19           an electrical operator responding to said control signals by moving in a second  
20           direction not aligned with said radial direction between a first orientation obstructing said  
21           travel and relative operable movement between said shell and said plug while said electrical  
operator is contained wholly within said plug, and a second and different orientation  
accommodating said travel and said relative operable movement between said shell and said  
plug.

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12           --64. A lock, comprising:

2           a shell containing a hollow recess defining a longitudinal axis and an interior  
3           cylindrical surface;

4           a cylinder plug rotatable around said longitudinal axis while resident within said  
5           hollow recess, said cylinder plug comprising a first base and a second base separated by an axial  
6           length of said cylinder plug from said first base, said second base bearing means for supporting a  
7           cam;

8           a bar interposed between said shell and said cylinder plug to travel generally along

9 a radial plane between a first position engaging both said shell and said plug while obstructing  
10 rotation of said cylinder plug within said recess, and a second position accommodating said rotation;  
11  
12 a logic circuit generating an electrical control signal in response to a comparison  
13 between a code set within said logic circuit and a data signal applied to said logic circuit;  
14 an electrical conductor provided by said plug, conveying said data signal to said logic  
15 circuit; and  
16 an electrical operator borne by said cylinder plug and rotatable with said plug, said  
17 electrical operator being electrically operable to respond to said control signal by moving between  
18 a first orientation providing obstruction of said travel and a second and different accommodating said  
travel.

1 --65. A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an interior  
3 cylindrical surface;  
4 a cylinder plug rotatable around said longitudinal axis while resident within said  
5 hollow recess, said cylinder plug comprising a first base and a second base separated by an axial  
6 length of said cylinder plug from said first base, said second base bearing means for supporting a  
7 cam;  
8 a bar interposed between said shell and said cylinder plug to travel generally along  
9 a radial plane between a first position engaging both said shell and said plug while obstructing  
10 rotation of said cylinder plug within said recess, and a second position accommodating said rotation;

*CON* a logic circuit generating a control signal in response to a comparison between a code set within said logic circuit and a data signal applied to said logic circuit;

an electrical conductor provided by said plug, conveying said data signal to said logic circuit; and

an electrical operator comprising an armature, said armature being borne by said cylinder plug and rotating around said longitudinal axis with said plug, said electrical operator being electrically operable to respond to said control signal by moving between a first orientation providing obstruction of said travel and a second and different orientation accommodating said travel.

--66. The lock of claim 65, with said electrical operator further comprising a coil of an electrically conducting material that is borne by said cylinder plug and wound to drive said armature to move from one of said first and second orientations to the other of said first and second orientations in response to said control signal.

--67. The lock of claim 65, with said electrical operator further comprising a coil of an electrically conducting material that is borne by said cylinder plug and wound to drive said armature to move from said first orientation to said second orientation in response to said control signal.

--68. The lock of claim 65, with electrical operator further comprising a coil of an electrically conducting material that is borne by said cylinder plug and wound to drive said armature

6 to rotate around an arc in response to said control signal.

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--69. The lock of claim 65, with said electrical operator further comprising a coil of an electrically conducting material that is borne by said cylinder plug and wound to drive said armature to reciprocate along a radial axis that is transverse to said radial plane in response to said control signal.

*Sub 13*  
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--70. A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an interior cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident within said hollow recess, said cylinder plug comprising a first base and a second base separated by an axial length of said cylinder plug from said first base, said second base bearing means for supporting a cam;

8 a bar interposed between said shell and said cylinder plug to travel generally along a radial plane between a first position engaging both said shell and said plug while obstructing rotation of said cylinder plug within said recess, and a second position accommodating said rotation;

11 a logical circuit generating said control signal in response to a comparison between a code set within said logic circuit and a data signal applied to said logic circuit;

13 an electrical conductor provided by said plug, conveying said data signal to said logic circuit; and

15        an electrical operator borne by said cylinder plug and rotatable with said plug, said  
16        electrical operator being electrically operable to respond to an electrical control signal applied to said  
17        electrical operator by moving along a geometrical construct other than to said radial plane between  
18        a first orientation providing obstruction of said travel and a second and different orientation  
19        accommodating said travel.

KP 19  
cont

--71. The lock of claim 70, with said electrical operator further comprising an armature and of an electrically conducting material that is borne by said cylinder plug and wound to drive armature to move along said geometric construct in response to said control signal.

1 --72. The lock of claim 70, with said electrical operator further comprising an armature and  
2 a coil of an electrically conducting material that is borne by said cylinder plug and wound to drive  
3 said armature to move along said geometric construct in response to said control signal from said  
4 second orientation to said first orientation.

5 --73. The lock of claim 70, with said geometric construct comprising an arc and said  
6 electrical operator further comprising an armature and a coil of an electrically conducting material  
7 that is borne by said cylinder plug and wound to drive said armature to rotate around said arc in  
8 response to said control signal.

--74. The lock of claim 70, with said geometric construct comprising a radial axis that is

2 transverse to said radial plane, and said electrical operator further comprising an armature and a coil  
3 of an electrically conducting material that is borne by said cylinder plug and wound to drive said  
4 armature to reciprocate along said radial axis in response to said control signal.

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--75. A lock, comprising:

2 a shell containing a hollow recess defining a longitudinal axis and an interior  
3 cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident within said  
5 hollow recess, said cylinder plug comprising a first base and a second base separated by an axial  
6 length of said cylinder plug from said first base, said second base bearing means for supporting a  
7 cam;

8 a bar interposed between said shell and said cylinder plug to travel generally along  
9 a radial plane between a first position engaging both said shell and said plug while obstructing  
10 rotation of said cylinder plug within said recess, and a second position accommodating said rotation;

11 a logic circuit generating said control signal in response to a comparison between a  
12 code set within said logic circuit and a data signal applied to said logic circuit;

13 an electrical conductor provided by said plug, conveying said data signal to said logic  
14 circuit; and

15 an electrical operator borne by said cylinder plug and rotatable with said plug, said  
16 electrical operator being electrically operable to respond to said control signal by moving along a  
17 radial axis that is transverse to said radial plane, between a first orientation providing obstruction of

18 said travel and a second and different orientation accommodating said travel.

6. A lock, comprising:

a shell containing a hollow recess defining a longitudinal axis and an interior cylindrical surface;

a cylinder plug rotatable around said longitudinal axis while resident within said hollow recess, said cylinder plug comprising a first base and a second base separated by an axial length of said cylinder plug from said first base, said second base bearing means for supporting a cam;

a logic circuit generating said control signal in response to a comparison between a code set within said logic circuit and a data signal applied to said logic circuit;

an electrical conductor provided by said plug, conveying said data signal to said logic circuit;

an elongate bar exhibiting a greatest longitudinal dimension along a second axis that extends transversely to said first base and to said second base, said bar being interposed between said shell and said cylinder plug to travel generally along a radial axis that is transverse to said second axis, between a first position engaging both said shell and said plug while obstructing rotation of said cylinder plug within said recess, and a second position accommodating said rotation; and

an electrical operator borne by said cylinder plug and rotatable with said plug, said electrical operator being electrically operable to respond to said control signal by moving along said radial axis between a first orientation providing obstruction of said travel and a second and different

20 *O<sup>14</sup> const* orientation accommodating said travel.

✓ 21 --77. A lock, comprising:

22 a shell containing a hollow recess defining a longitudinal axis and an interior  
3 cylindrical surface;

4 a cylinder plug rotatable around said longitudinal axis while resident within said  
5 hollow recess, said cylinder plug comprising a first base and a second base separated by an axial  
6 length of said cylinder plug from said first base, said second base bearing means for supporting a  
7 cam;

8 a logic circuit generating said control signal in response to a comparison between a  
9 code set within said logic circuit and a data signal applied to said logic circuit;

10 an electrical conductor provided by said plug, conveying said data signal to said logic  
11 circuit;

12 an elongate bar exhibiting a greatest longitudinal dimension along a second axis that  
13 extends transversely to said first base and to said second base, said bar being interposed between said  
14 shell and said cylinder plug to travel generally along a radial axis that is radial to said cylinder plug  
15 and transverse to said second axis, between a first position engaging both said shell and said plug  
16 while obstructing rotation of said cylinder plug within said recess, and a second position  
17 accommodating said rotation; and

18 an electrical operator borne by said cylinder plug and rotatable with said plug, said  
19 electrical operator being electrically operable to respond to a control signal by moving between a

20 first orientation providing obstruction of said travel and a second and different orientation  
21 accommodating said travel.

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--78. The lock of claim 25, with said electrical operator further comprising an armature and  
2 a coil of an electrically conducting material that is borne by said cylinder plug and wound to drive  
3 said armature to move from one of said first and second orientations to the other of said first and  
4 second orientations in response to said control signal.

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--79. The lock of claim 25, with said electrical operator further comprising an armature and  
2 a coil of an electrically conducting material that is borne by said cylinder plug and wound to drive  
3 said armature to move from said first orientation to said second orientation in response to said  
4 control signal.

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--80. The lock of claim 25, with electrical operator further comprising an armature and a  
2 coil of an electrically conducting material that is borne by said cylinder plug and wound to drive said  
3 armature to rotate around an arc in response to said control signal.

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--81. The lock of claim 25, with said electrical operator further comprising an armature and  
2 a coil of an electrically conducting material that is borne by said cylinder plug and wound to drive  
3 said armature to reciprocate along a radial axis that is transverse to said radial plane in response to  
said control signal.